## **Study ID Number: Customer Information/Study Objectives First Name: Last Name: Phone Number: Email Address: Mission Name: Report Type: Study Objectives:** Science **Science Objectives: Measurement Objectives: Data Collection Scenario: Mission Characteristics Target or Destination: Delivery Trajectory Type: Launch Date: Desired Operations Orbit: Mission Duration From Lanuch (mnths): Preferred Launch Vechicle: Spacecraft** Do you have a Spacecraft Design to start from? Is there a Mass Power Equipment List? Do you plan to use a Commercial Bus? If answer is Yes, which one? **Programmatics Pincipal Investigator: Institution: International Involvement? Mission Schedule Constraints: Mission Cost Constraints:** Radioisotope Power System(RPS)Required? **Redundancy Policy: Avionics Test Bed Required? Engineering Model of S/C Required? Engineering Model of Payload Required? Class Parts:**

**Length(mnths) of Phase A:** (Please enter the number from 1 to 25)

## **Length(mnths) of Phase B:** (Please enter the number from 1 to 25) **Length(mnths) of Phase C/D:** (Please enter the number from 1 to 72) **Length(mnths) of Phase E:** (one month less than Mission Duration.) Gound System and Telecom System **Ground System** What % of the data must be returned? Acceptable data latency (number only): **Telecom System** Required bit-error rate(downlink)? **Electric Propulsion Maximum flight time**(or arrival year): **Trajectory options(if any): Duty cycle(standard is 90%): Technology preferences(optional): Thruster Type:** If SEP, Solar Array type: If NEP, Nuclear Power Source Type: **Number of Thrusters/Allowable Combinations: Estimated S/C Dry Mass:** Mass Dropped at Intermediate Body: **Estimated S/C Power(excluding SEP)(W): Estimated SEP(end of life) array power (kW): Stay Time at Intermediate Body(if any)(days):** Solar Sail **Sail Dimensions(m): Areal Density of Sail (kg/m2): Reflectivity: Emissivity:** Thermal Constraints: max,min temps Instrument **Instrument Type Instrument Cost(current best estimate)?(\$M)** Mass(current best estimate)(kg): Max Data output rate to CDS (Kbps): Data Volume per day: **Power(current best estimate)(W):**

Operating, peak:

Standby/Keepalive:

## Study Technical Form

| Special Requirements:                                   |  |
|---|--|
| Dimensions:   |  |
| Width(cm):  |  |
| Length(cm):   |  |
| Depth(cm):  |  |
| Sensor cooling required? Temperature/Detector Power:    |  |
|   |  |
| <b>Special Thermal Interface Requirements?</b>          |  |
| Is Payload Processing Required?                         |  |
| <b>Special Contamination Requirements?</b>              |  |
| <b>Required Pointing Control?</b>                       |  |
|   | If the answer is Yes, please answer the following questions: |
| <b>Pointing Control Requirement(arcsec):</b>            |  |
| <b>Pointing Stability Requirement(arcsec/sec):</b>      |  |
| Pointing Knowledge Requirement(arcsec):                 |  |
| <b>Reconstruction Requirement(arcsec):</b>              |  |
| No. of axes for articulation/slewing:                   |  |
| Maximum Slew Range(deg):                                |  |
| Minimum Retargeting Time(sec):                          |  |
| No.of Re-targetings Per Day:                            |  |
| Other Pointing Requirements:                            |  |
| University Built?                                       |  |
| <b>Estimated Development Time(months):</b>              |  |
| Design Life/Mission Life: (years)                       |  |
| Is this an Exact Copy of a Prior Instrument–NO Changes? |  |
| If answer is Yes, please Specify:                       |  |
| Inheritance:  |  |